AUGUST 1946

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Firemen

Volume 13 Number 8

WARREN Y. KIMBALL, EDITOR
ANNE BAILEY, ASSOCIATE EDITOR
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A VOLUNTARY NON-PROFIT ORGANIZATION

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THE cover picture (Royal Oak *Daily Tribune*) was pushed aside last month by the sudden and tragic La Salle Hotel fire in Chicago. It was snapped on April 26 during the $350,000 fire that destroyed building materials essential to the housing program at the L. I. Pearson lumber yard and the J. C. Austin Construction Company's warehouse in Royal Oak, Mich.

Thousands of feet of seasoned lumber, window sash, glass, and 300 gas heaters for residential buildings were destroyed, according to the *Lansing State Journal*. Flames were accelerated when a warehouse containing paint and other combustible materials caught fire.

DURING June, fire destroyed a one-story, metal-clad factory manufacturing metal roofing material and sidings. This plant was located in a small middle western community over one-half mile from the nearest water supply, but only a short distance from a city fire department. It appeared that the building had been struck by lightning and that the fire smoldered for some time before it was noticed by neighbors. The town volunteer department responded with a 600-gallon tank truck and had the fire almost extinguished when the tank was exhausted. While the tank was being refilled, the flames spread rapidly throughout the plant. Help was then called from the adjoining city but by the time this added equipment arrived and two truck loads of hose could be laid out to the nearest water source, the entire building was involved. The loss from this fire was estimated at $100,000.

This fire is just one of a number of cases reported recently to the NFPA Fire Record Department where large losses have resulted through failure to call adequate help to a building fire at an important plant. This is particularly important in rural areas where water supplies are limited. No large city fire department would think of attempting to fight an important fire with one fire company. The usual first alarm responses in the high-value districts of large cities vary from six to a dozen or more fire trucks. More extensive mutual aid called early to any local fire may prevent repetition of many such losses. It is better to call additional equipment and not need it than to delay the call for a few minutes only to find that the fire is beyond control.

Where fires must be fought by water tank equipment, it is important that more than one unit be dispatched if it is at all possible because a second truck can be used to hold the fire in check while the first machine is refilling its tank. In other cases where water supplies are near enough, a second machine may be able to suction and pump into the tank of the first to give a continuing water supply.

NFPA MEMBER F. J. Sullivan, assistant district secretary, Board of Fire Underwriters of the Pacific, Butte, Mont., reports an interesting fire at Helena on May 20. Fire started in the basement of a business block at 2:42 A.M. and flames extended upward through the open light well of the old structure.

Previous to the fire a three-day fire school had been conducted in the city to instruct firemen in the operation of a new aerial ladder truck. Chief Henry Quane, of Anaconda, and Capt. Herbert L. Olson, of Spokane, were the instructors. Firemen from many nearby communities had attended the training school.

Chief Joe Munger, of Helena, stated: "Our new aerial ladder and the training in its use that our men received in the past few days are the reasons that we are not fighting the fire as far down the street as Sixth Avenue this morning. In a few more minutes the fire could easily have broken out of control and gutted the entire block.

"When we arrived my men couldn't get up the stairways because of the heat, although water was running like a flood. We couldn't see the flames for the smoke. We used the new aerial ladder to poke out windows and to reach the roof to break out the skylights so that we could ventilate the fire and enter the building to fight it. We had the fire under control within an hour, through the use of the ladder."

Seaweed Plant Burns on Maine Coast

$500,000 fire destroys main building of Algin Corporation of America in Rockland, Maine, on May 22

BEFORE the very eyes of Algin Corporation's manager, flames flickered around a pumping unit in the alcohol tank section of the plant and then blazed forth into a rapidly spreading fire.

On the previous day a 10,000-gallon wooden tank had been filled with isopropyl alcohol, and it was near the base of this tank that the fire reportedly originated. At all times there was a heavy concentration of alcohol fumes about the plant.

Algin Corporation was a kelp-processing plant. Kelp, or "devil's apron" as it is colloquially known, is similar to seaweed and a form of algae. It is found on the northern shores of North America. From the ash produced by burning kelp, iodine is obtained. Kelp is also a source of sodium alginate, used in the manufacture of foods.

The building in which the $500,000 fire took place was of one-story, frame construction with a cement floor area of 40,470 square feet. The roof was board with asphalt paper covering. Even as early as the alarm was telephoned to fire headquarters, the entire area was involved. There were no fire cutoffs to slow down the progress of the fire. There were no safes or vaults and all company records were destroyed.

Chief Van E. Russell, of Rockland, summed up the situation when he reported that the large loss at Algin Corporation was due to the nature of the contents, the open area, and the type of construction. Apparently neither the management nor the workmen had appreciated the many possible sources of ignition in this plant.

When the plant was built, Rockland had no building code to specify what was necessary for fire safe construction. Not until March 24 of this year was a building code adopted and enforcement promised.

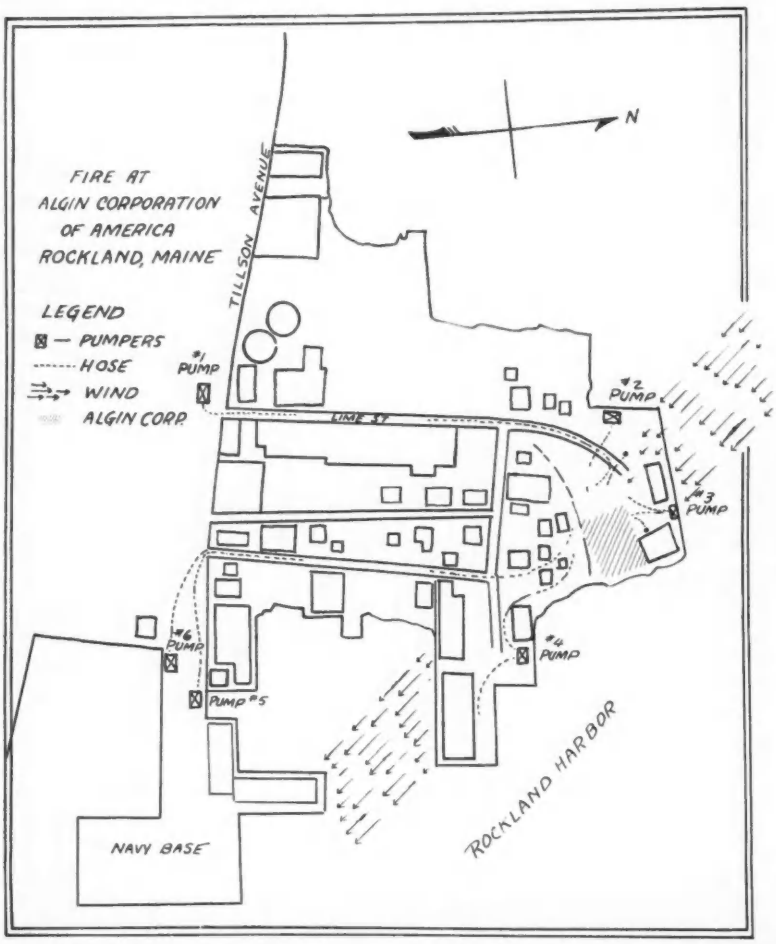
Apparatus called in on the fire to cover exposures consisted of two 500 g.p.m. pumpers from the U. S. Coast Guard base, a 600 g.p.m. pumper from Camden, and Thomaston's 750 g.p.m. pumper. Also operating on the fire were 400, 500, and 750 g.p.m. pumpers, all drafting sea water.

At the outset of the fire, the entire capacity of the available 6-inch main was being used in the plant's procesing vats. Fifteen minutes elapsed before it could be shut off.

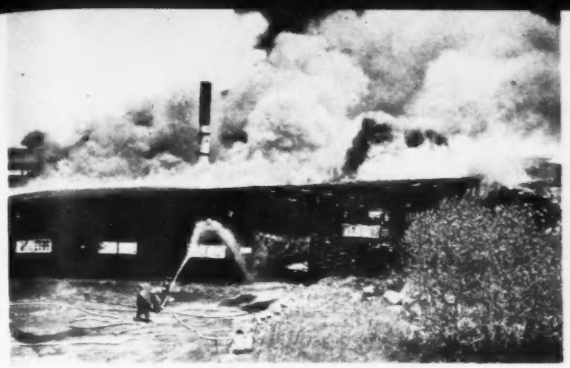
The Algin Corporation's loss recalls the $750,000 fire that occurred three years ago on February 25 in the Snow Shipyards in Rockland, about a mile away from the Algin plant on Crockett's Point. (See *Volunteer Firemen*, May 1943.)

CHIEF Russell's 32-man department (NFPA member) protects an area of about ten square miles with a population of about 10,000. Apparatus in operation includes three centrifugals, two rotarys and one city service ladder truck. All firemen volunteer their services without compensation, except for the chief and six paid men.

The Rockland Fire Department was organized in 1840.



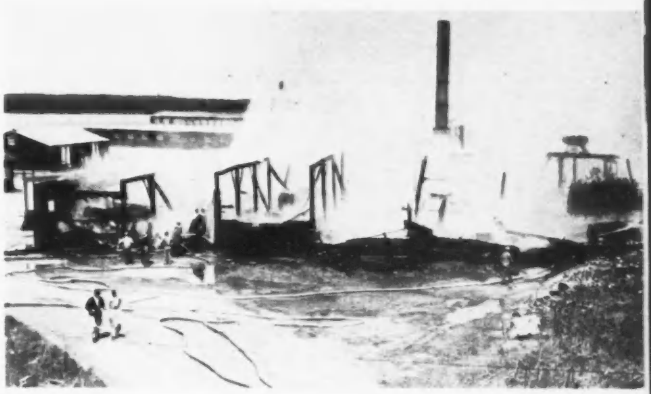
The pumper setup, as indicated on the fire grounds plan at left, was changed somewhat during the fire. At No. 2 pumper there should have been two 500-gallon units indicated rather than just one. No. 4 pump lines were shifted as needed to protect exposures. Chief Russell reported counting twenty-five different fires starting in the vicinity of No. 4 pumper.



Above. When this photograph was taken at Algin Corporation, at Rockland, Maine, the fire had been under way only a few moments. Its terrific intensity was being fueled by 10,000 gallons of isopropyl alcohol, used in processing the kelp.

Above, right. At this moment in the progress of the fire, at Algin Corporation, the roof had collapsed and the walls were burning like matchsticks. Just after this picture was taken, the western wall, nearest the camera, fell in. So great was the draft into the building, that flames were drawn more than thirty feet into the center through a door to the left of the empty windows seen in the picture.

Right. Less than two hours after the start of the fire, Algin Corporation's main building lay in smoldering ruins.



Hatfield-Campbell Creek Coal Fire

SOME of the hardest fires to fight do not always result in large losses. On May 20, firemen from Cincinnati, Ohio, fought a $21,500 fire that damaged 100 feet of coal trestle, coal tipples and elevator control house at the Hatfield-Campbell Creek Coal Company.

This blaze necessitated laying long lines of hose across numerous railroad tracks but was stopped in comparatively short order by twenty fire companies responding to three alarms.

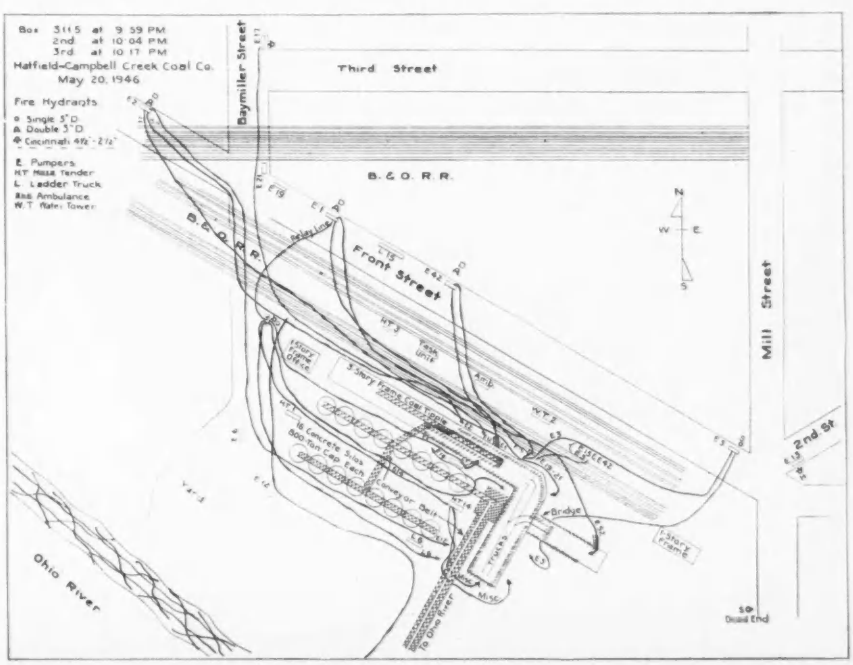
The accompanying diagram shows how the pumpers and apparatus were placed to protect a newly-installed metal elevator adjacent to the old frame elevator that was burning. Lines were placed around and inside two coal tipple houses to cut off the fire.

Flames broke out in the evening after workmen, during dismantling operations, had been using an acetylene torch to cut hog chains which held the trestle together. According to the fire department, sparks apparently fell on combustible material.

A report by Fire Marshal Alexander Blackburn summed up the lessons of the fire as follows:

"A pre-knowledge of the plant layout, yard roads, structure, water supply, and the existence of a new elevator installation hidden from view by the old structure and immediately adjacent facilitated a quick and correct size-up, dictating the strategy to be used. Water at great distances from the fire necessitated laying long lines. Three hose tenders were used to lay

Continued on page 21



Waterworks *and the* Fire Department

By Harry J. Corcoran, Engineer
Iowa Insurance Service Bureau
Des Moines, Iowa

A CLOSE relationship must exist between the fire department and the water department of a city if the maximum value of both departments is to be realized. Since a close relationship can exist only on a basis of mutual understanding and respect, the heads of the two departments should be willing to make definite efforts to maintain close contact with each other and to promote a knowledge of the workings of the other department throughout the ranks of his own. It is a responsibility that should not be avoided. Without cordial cooperation some very foolish and harmful things can occur.

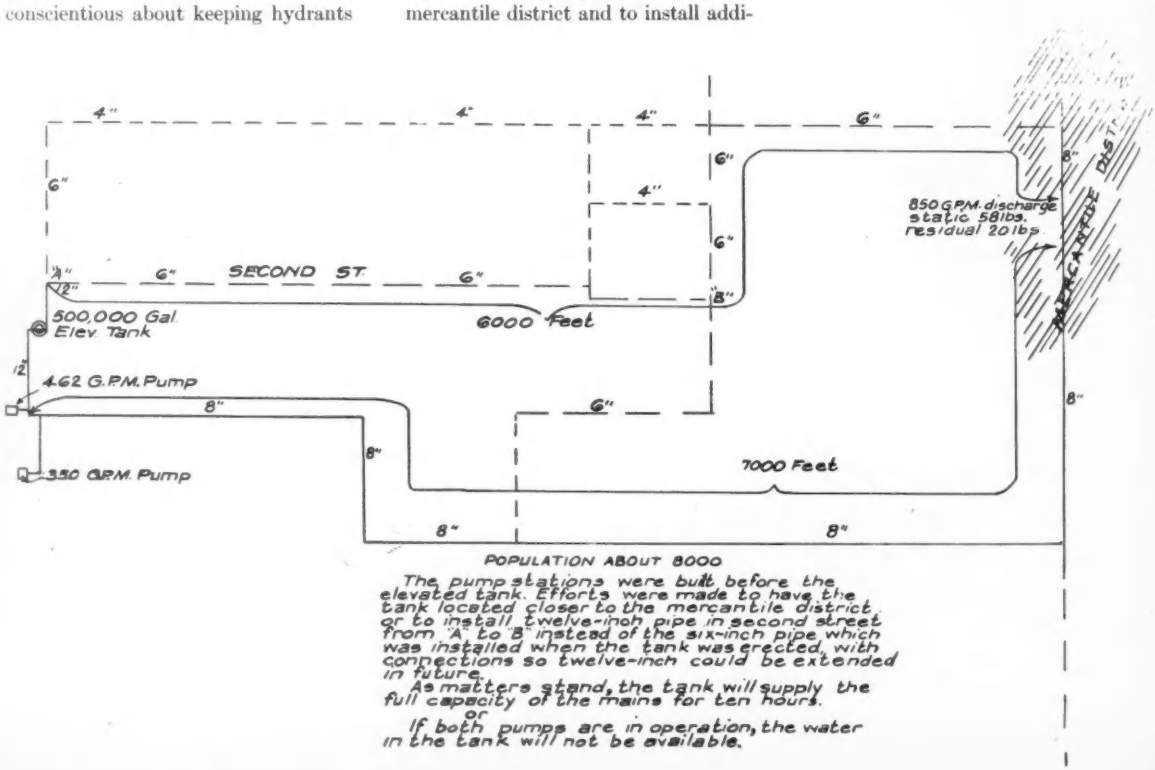
For about fifteen years a difficult situation existed in a prosperous and progressive city of 7,500 population. The fire department was largely volunteer with paid drivers. The fire chief had always been a quiet but capable officer who devoted a lot of spare time to the job.

The head of the water department grew up with the department and was looked upon by the public as an authority on water systems. Actually he did not know much about the science of water supply but he was handy with machinery. There was always plenty of water for domestic use and he was conscientious about keeping hydrants in good condition. A system of operation during fires, built up around a prized 1,000-gallon fire pump, had always worked well because no really bad fire ever had occurred.

A survey of the fire fighting facilities about twenty years before had disclosed three glaring faults in the water system when considered from the need for handling a serious fire in the mercantile district. First, the wells would most certainly fail to supply the fire pump at full capacity for more than an hour except during a favorable wet period. Secondly, all the hydrants in the mercantile district were connected to a single 6-inch pipe. Fire-flow tests proved that only about 600 g.p.m. could be obtained with the normal tank pressure and not much more than 750 g.p.m. in the far end of the mercantile district with increased pressure from the fire pump. Thirdly, there were no hydrants around the outer boundary of the mercantile district.

The superintendent was urged to install additional wells, to lay a 12-inch pipe from the pumping station to the mercantile district and to install additional hydrants. He knew additional wells were needed but was not convinced that a fire could occur which would over-tax the supply or the distribution system. He thought that such quantities of water were needed in cities, but there could be no need for them in a small town. During the discussion he was urged to avoid use of the fire pump during a bad fire but to leave the elevated tank open and let the fire department increase the pressure. The fire chief was advised of the situation and asked if he could bring about a change in the superintendent's attitude. He was not successful.

When a bad fire finally did break out in the mercantile district, the result was not surprising. When the fire was at its worst stage, the wells failed and the department was left without water. The large pumper was exposed to so much heat that the men could not take time to shut down the hydrant and disconnect but had to chop the hose. From then on the conflagration spread rapidly. Outside aid was called



and the local fire department fought desperately.

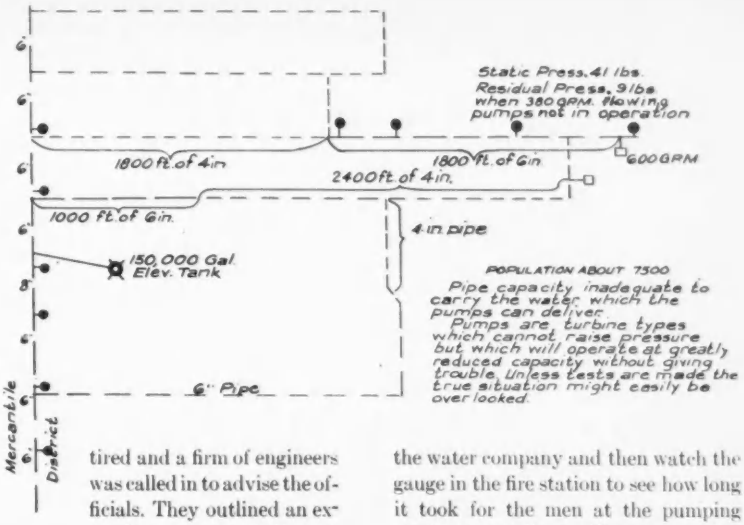
The fire damaged the asphalt paving so badly that the city council decided to replace it the full length of the mercantile district. The fire chief insisted that a new water main and additional hydrants be installed while the street was torn up. The superintendent agreed that a new main was needed but he would not approve anything larger than six inches, on the theory that two 6-inch pipes would be more than ample. The fire chief insisted that the new hydrants should be the pumper type and the superintendent agreed. To the dismay of the chief, the superintendent resurrected some old 4-inch pipe and used about fifteen feet of it to connect each hydrant to the new 6-inch pipe. Subsequent tests showed that none of the new hydrants could furnish more than 650 g.p.m. to a pumper. The fire chief also asked for cross-connections between the old and new pipe at each street intersection, but only one was installed at the far end of the new pipe.

The well situation was so apparent to everyone that additional wells were started. The site chosen was about one mile from the mercantile district and two good wells were brought in. Two pumps were installed, one with a capacity of 600 g.p.m. and one 400 g.p.m. Three 4-inch pipes in the distribution system reached to within four blocks of the new wells. They were connected together and one new 6-inch and one new 4-inch pipe were laid to the wells against the advice of the fire chief. After the work was completed, tests showed that the capacity of the pipes from the wells to the mercantile district was a little less than 400 g.p.m.

That situation continued for ten years until a change in officials occurred. Less than a year ago a firm of engineers was hired by the city to make plans for an improved waterworks. At last report they were still looking for a solution that would not be prohibitive in cost. That is an extreme case, but several others are known which are not much better.

In another city of around 15,000 population, the city council bought two pumpers back in the early 1920's, one a 750-gallon and the other a 350-gallon. The chief did not have much faith in them and the water superintendent had always shut off the small elevated tank and increased pressure for all fires.

A few years after the pumpers were bought, the water superintendent retired and a firm of engineers was called in to advise the officials. They outlined an extensive program of changes and recommended hiring an experienced waterworks man to manage the system. Most of the changes involved new large pipes, for tests had disclosed the fact that the old pipes could not deliver more than half the capacity of the pumps into the mercantile district without raising pressures to a dangerous extent.


Static Press. 41 lbs.
Residual Press. 9 lbs
when 380 GPM. flowing
pumps not in operation
1800 ft. of 4 in
1800 ft. of 6 in
600 GPM
2400 ft. of 4 in.
1000 ft. of 6 in.
4 in pipe
150,000 Gal
Elev. Tank
POPULATION ABOUT 7300
Pipe capacity inadequate to carry the water which the pumps can deliver.
Pumps are turbine types which cannot raise pressure but which will operate at greatly reduced capacity without giving trouble. Unless tests are made the true situation might easily be over looked.
6" Pipe
Mercantile
District

After the new pipes were completed, the new superintendent called on the fire chief and told him that there was now plenty of water for his pumpers without having to increase pressure and explained which hydrants to use in those locations where good and not-so-good hydrants were near together. The chief had always been given fire pressure when he needed it and did not see why there was any need to change. He did not make an effort to find out whether he could change his methods of working at a fire to advantage.

The outcome was that the superintendent, who was new in the city, did not press his point but agreed to continue the practice of increasing the pressure. During a serious fire it was necessary to shut down a hydrant quickly and a severe water hammer shock caused a break in an 8-inch pipe which wasted so much water that the fire department was handicapped until that section of pipe was closed.

In another city, served by a privately owned water company, the fire chief felt that the city was never able to get its money's worth. He was a firm believer in having pressure increased all over the system for each fire, which the company contended was not necessary. One of the chief's favorite stunts was to send a man out to open a hydrant without warning the water company and then watch the gauge in the fire station to see how long it took for the men at the pumping station to catch up. He never understood that a sudden drop in pressure at the station and a sudden speed-up of the pump that was running could mean a break in the system just as much as it could mean a fire or an open hydrant.

The company manager finally proposed to erect a large elevated tank, but the chief opposed the idea on the grounds that he could not get enough pressure. That situation existed until the city finally bought the waterworks and the water committee of the council found out the true state of affairs.

These illustrations are enough to show the results of having men at the head of either department who are not well informed or who are unwilling to make any effort to understand the other fellow's problems. Fortunately such situations are not common and the majority of troubles are due to lack of foresight.

Not long ago a break occurred in an automatic sprinkler system. Some employees working overtime reported the waterflow to the water department, but the employees did not say anything about the fire protection system, if indeed they knew what it was. The trouble man at the water department did not know or realize that a sprinkler system might be involved. He advised them to get a plumber to shut off the water.

The owner of the tenant firm had been called and he tried to notify the owner of the building. No night watchman was employed, but the tenant did get the janitor who came down but did not know what to do. Another appeal to the water department brought a couple of men and a truck. They did not recognize the

Continued on page 11

If United States Cities Had Been Bombed . . .

Destruction in German and Japanese Cities and What It Would Have Meant in Terms of United States Cities

By Horatio Bond, Chief Engineer
National Fire Protection Association

HOW bad would it have been for us if, instead of those of Germany and Japan, the cities of the United States had been on the receiving end of the air war? Pretty bad, I believe. At least 121 United States cities would have had their city centers destroyed and the total destruction would have been between 40 to 50 per cent of all the building areas in the city limits. The total destruction, principally due to fires, was of the order of thirty-three billions of dollars in Germany and Japan alone. This is about equivalent to the United States fire loss in 100 years at the current rate of burning.

The fires were accompanied by great loss of life. As early as July 1943, a great fire attack on Hamburg, Germany, by the Royal Air Forces burned over 12½ square miles of the city and killed 60,000 people. This attack, according to the United States Strategic Bombing Survey, shook Hitler and nearly knocked Germany out of the war at that time. Tokyo's air-set conflagration of March 10, 1945, killed nearly 84,000 people, and other fires of the Japanese attack resulted in loss of life. There is reason to believe that the wartime fires killed hundreds of thousands of people.

The atom bomb hasn't changed very much the fundamental fact that in another war our cities could be destroyed, just as in this war the British and Americans destroyed those of Germany and Japan. As the war progressed, the destruction of the enemy cities became a scientifically planned operation. So many bombers, with so many incendiaries and high explosive bombs, meant just so many square miles of buildings burned out or leveled.

DESTRUCTION IN JAPANESE CITIES BY U.S. AIR FORCES
Destruction almost wholly due to fire affects 12 to 96 percent of area of city in individual cases with median of 48 percent
Tokyo
Yawata
Fukuoka
Nagasaki
500 Miles
NATIONAL FIRE PROTECTION ASSOCIATION

This map of damage to Japanese urban areas in fire attacks is based on the Third Report of the Commanding General of the U. S. Army Air Forces. Destruction in only two Japanese cities was caused by atomic bombs. Destruction in the sixty-five other principal cities was due to urban area attacks with fire bombs.

That the destruction was carefully planned is the significant thing. Early use of incendiaries was pretty hit-or-miss because the air forces and their scientific advisers had little experience to enable them to predict what was going to happen in the way of fires on the ground. Fire protection engineers were used to provide this knowledge and enabled attacks to be scheduled with relatively predictable results from a given number of incendiaries and bombs delivered.

A lot of persons who wore a white helmet and carried a stirrup pump as an air raid warden or fire guard will be interested in knowing that it was the civil defense agencies that furnished the air forces with the information to make the incendiary attacks effective. The British Ministry of Home Security studied raids on England and was able to turn around the data thus obtained to make attacks on the enemy effective. Arrangements were made through the United States Office of Civilian Defense to supply American fire protection engineers to assist in these studies. Later, with the shift of the air war from Europe to Japan, this group of civil defense experts and fire protection engineers was transferred to a Joint Target Group in Washington to plan the fire attacks against Japan.

Americans may be making a serious mistake in thinking that our need for civil defense in this country is happily past. Civil defense arrangements may be more important in another war than the army and navy. It is not a nice prospect, but any large city will need, for example, a mortuary service to handle hundreds of thousands of dead. Similar numbers of persons must be housed, clothed, fed. The civil defense services must be organized in any city so that they can function with half the city destroyed and half the people dead.

You are safest in another war if you live in the country where the houses are spaced well apart. Where houses are adequately spaced, it isn't worth trying to destroy them. This is probably true, even if the atom bomb is used. The objective of our physical defenses should be that buildings be so spaced that a relatively small number of people would be killed even if a bomb is used capable of destroying everything in a very large area, such as a square mile.

Spacing out buildings is better and more practical than going under-

Air attacks were directed against urban areas (as distinct from industrial or other specific targets) in Germany, principally by the Royal Air Forces. These gave the Germans a terrible lesson in the disadvantages of war. Practically all large cities lost their centers in great fires. They were damaged, preponderantly by fire, in amounts shown as based on assessments by the British Ministry of Home Security.

DESTRUCTION IN GERMAN CITIES
BY ROYAL AIR FORCES AND U.S. AIR FORCES
500 Miles
SWEDEN
ENGLAND
FRANCE
POLAND
EAST PRUSSIA
ITALY
Destruction (mostly due to fire) of building areas in city limits varies 10 to 70 percent in individual cities with median of 40 percent
The 54 principal German Cities shown is not necessarily a complete list of German cities with substantial destruction
NATIONAL FIRE PROTECTION ASSOCIATION

A map presented at the Annual Meeting of the NFPA to visualize the destruction in enemy cities in terms of United States cities of approximately the same population. On that basis, New York is a fair match for Tokyo, and for 120 other German or Japanese cities a United States city can be picked to correspond, as has been done on this map. There is no United States city exactly matching Berlin, nor is there an exact match on the basis of population with Japan's second city, Osaka. The population of two metropolitan areas, as defined for census purposes, in Chicago and northern New Jersey respectively, have been used to match Berlin and Osaka. The destruction in the enemy cities of Germany and Japan, if expressed in terms of valuations of the 121 United States cities shown on the map, would be of the order of thirty-three billions of dollars.

ground. Huge bombproof structures, as in some of the cities of Germany, with concrete walls and roofs ten feet thick or more, could be built to give a measure of protection. We have either got to make up our minds to keep the peace or look forward to living in such huge structures, going underground or spacing out buildings.

Put an acre at least around every single-family dwelling. The planning laws of a number of New England towns already require a lot one acre in size for single family dwellings, so the idea is not revolutionary. Allow at least an acre of open space for every five persons accommodated by other buildings, and keep the total number of people in any one building at the lowest practical limit.

Preparations against a future war should take the form of city planning measures of the sort indicated. The preparation and execution of plans for the reconstruction and rearrangement of our cities and towns is the most effective measure available for defense.

Waterworks *and the* Fire Department

Continued from page 9

existence of the fire protection system and were only concerned with shutting off the house service lines in the alley.

After about one and one-half hours of uninterrupted waterflow and some hard work to protect valuable contents, the building owner appeared and shut off the sprinkler system. The owner had decided to save some money and had discontinued supervisory service and the local alarm line had frozen. Three water department employees knew about the waterflow and those on the fire department found it difficult to understand why one of them did not think to notify the fire department.

It must be realized that the water department is busy with many things that have no connection with fire protection. The water department is a business institution and except in very small towns its principal function is to provide safe water for human use. The men who design water purifying plants are well informed. The need of water for fire fighting is not overlooked. However, the operation of such a plant is much easier if the rate of flow through the various processes can be kept uniform. Well trained men must be in charge to understand the requirements for reliable fire protection. They do not have to think about those requirements often and there are other matters which claim their attention. The fire chief, anxious to promote good relations with the water department, will keep that in mind and make it a point to maintain frequent contact.

There are certain routine matters that should take care of themselves, such as reporting to the fire department when a hydrant is out of service or a section of pipe shut off, reporting to the water department when a hydrant is found out of order or left that way after use. So many fires are con-

Continued on page 22

Tournament Rules from Nassau County, N.Y.

THE Firemen's Association of Nassau County, N. Y., has published its 1946 tournament rules and regulations. These rules will be interesting to any fire department group planning competitions in fire fighting evolutions because of the care in which the many details and possible points of controversy have been covered. In addition to thirty-nine rules for general conduct at tournament competitions, there is a section on classification and definition which divides competing equipment between regular factory-built apparatus and rebuilt or partially rebuilt trucks. Specifications for each item of equipment are included.

Tournament contests include individual ladder climbing, three men ladder climbing, three classes of motor hook and ladder company competition, various motor hose company contests and pumper contests, and also a number of pumper competitions. There are combination pumper and ladder contests, booster tank contests and also old fashioned bucket brigade contests. Arrangement is also included for several competitions by junior fire companies.

Persons interested in post rules may write to

Secretary Eugene M. Braun
4025 Main Street
Eggertsville, N. Y., or
Statistician Henry N. Buck
263 Castle Avenue
Westbury, N. Y.

The following are typical contest evolutions:

Motor Hook and Ladder Class A

Regular factory-built truck carrying 150 feet of ladder on permanent racks. Only one entry from a company allowed. Companies allowed 9 men only.

Apparatus to be placed with front wheels on starting line and motor running. At starting signal truck to run 150 feet, take 25-foot ladder and raise to arch. The ladder used must be removed entirely free from the truck or any part thereof before contestants start climbing, and in all cases ladder must be resting against the face of the arch before finish time is taken. Man to ascend to top and to start to climb not higher than the third rung.

Starting time to be taken when rear wheels cross line 100 feet from the arch. All men must be on truck when starting time is taken. Finishing time to be taken when climber grasps and holds top rung with his hand and ladder is resting on the front of arch. No raising devices allowed. The ladder used must not be taken from rear of truck after starting time is taken. Rungs not over fourteen inches on center. Ladder used must be regulation service ladder.

Combination Hose and Pump

Pump having a 4-inch or over, or under 4-inch intake allowed. Companies allowed 11 men only. Trucks to be placed with front wheels on starting line and motor running. Each company to name outlet to be used. Any size suction can be used. At starting signal both trucks to run 75 feet to hydrant, and starting time will be taken when the first truck's front wheels cross a line 25 feet from starting side of hydrant.

Hose truck to carry 200 feet of 2½-inch hose in the body of the truck, properly connected, and lay 150 feet of hose, break coupling, screw on nozzle. Couplings shall not be broken till after they have touched the ground and tripped a target placed 175 feet from the hydrant. Nozzle must be back of a line 150 feet from the hydrant and a line 25 feet from the target.

After target has been tripped, shut down water and connect hose to pumper, suction to hydrant and pumper, pump water, and trip a target 200 feet from hydrant. Nozzle must be back of a line 150 feet from hydrant and 50 feet from target or barrel. Time for this event will be taken after the second target has been tripped or barrel is filled by pumper. Time only after first target has been tripped by the hose truck line. Barrel to overflow at 45 gallons. All caps must be off the intake and outlet of pump. Snap coupling to be allowed on suction only. All men must be on trucks and no connection made until after timing line is crossed.

Fire Schools

Illinois. The Illinois Fire College at the University of Illinois, June 18–21, had the largest attendance in its twenty-two-year history. The total registration was 642, of whom 509 were firemen from 38 paid, 35 part-paid, and 104 volunteer fire departments.

Iowa. The 22nd Annual Iowa Fire School, held May 21–24, at the Iowa State College, Ames, announced a registration of 431 firemen from all parts of Iowa and neighboring states. One registrant arrived from the Balboa Fire Department in the Panama Canal Zone.

Maine. The Maine Association of Fire Chiefs held a quarterly meeting at Bangor on July 9 at which a spectacular display of fire fighting with waterfog took place. Chief Clifford Dennison, of Harrison (member NFPA), is president of the association.

The 18th Annual Northwest Fire School at St. Paul, Minn., May 13-15. This photograph was taken at the rear of the public safety building beside the fire department drill tower. Fire departments participating in the evolution contest used the St. Paul Fire Department's drill facilities.

Coming Events

August 5 - 9—Eighth Annual Pennsylvania Fire School at Lewistown.
August 7-10—Washington State Fire School at Bremerton.
August 10-11—Ohio State Firemen's Association Convention at Miami Hotel, Dayton.
August 19-23—Tennessee State Fire College at Murfreesboro.
August 24-26—Connecticut School for Firemen at the University of Connecticut, Storrs.
August 27—The Connecticut School will be concluded in New Haven.
September 3-6 — College Park, Maryland. Annual short course for firemen.
September 6-8 — Durham, New Hampshire. Training program for firemen at the University of New Hampshire.

Revision of Fire Administration Textbook

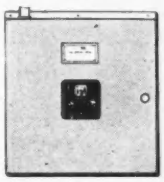
THE text on *Municipal Fire Administration*, issued by the Institute for Training in Municipal Fire Administration sponsored by the International City Managers' Association, has been issued in a Fourth Edition, 1946.

The text is prepared primarily for use in connection with a correspondence course offered by the Institute for Training in Municipal Administration. The textbook may be obtained as a part of the $35 fee paid for the course of lessons or it may be purchased separately for $7.50. A descriptive circular on the course and the textbook is available. For this, and in ordering the textbook, write directly to the Institute for Training in Municipal Administration, 1313 East 60th Street, Chicago 37, Illinois.

This is a replica of the attractive red and black poster circulated to publicize the forthcoming Pennsylvania fire school.

FIRE TRAINING
by FIRE FIGHTING
EIGHTH ANNUAL
PENNSYLVANIA FIRE SCHOOL
AUGUST 5-9, 1946 · LEWISTOWN, PA.
FOR INFORMATION-WRITE FIRE SCHOOL, 333 EDUCATION BLDG. HARRISBURG PA.

A Watchman that Breathes and Sees *BUT*—Neither Sleeps nor Moves an Inch from One Spot

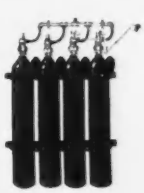


Since men are only human, and some fire equipment is actuated by men after the fire is discovered, it's mighty important that fire is detected when it begins to smolder or smoke. That's the vital job of the combined C-O-Two automatic smoke detecting and fire extinguishing system.

If you store valuable records, tracings or other materials in vaults or isolated spaces you should install C-O-Two. Smoke in a protected space is detected by the new C-O-Two industrial Smoke Detector. It is not dependent upon heat, and the fire is discovered in its incipiency, as smoke alone actuates the detector. The alarm sounds, pressure-operated releases automatically close windows, doors or dampers and a pressure-operated switch shuts off motors to stop ventilation. A time delay controls the discharge of dry, non-damaging, sub-zero carbon dioxide into the occupied area. The fire is under control.

For incipient or flash fires in bake ovens, spray booths, drain boards, dip tanks, flammable liquids and electrical machinery C-O-Two portables with the famous Squeez-Grip valve are recommended. Wheeled and hose units kill fires in seconds. All employ carbon dioxide, the fastest non-damaging extinguishing agent. C-O-Two engineers will help you plan modern fire protection. Write today for information.

C-O-Two is listed by the Underwriters' Laboratories; fully approved by Factory Mutuals and the Bureau of Marine Inspection and Navigation. C-O-Two is a registered trade mark. To be safe, when you buy, specify C-O-Two.



C-O-TWO

C-O-TWO FIRE EQUIPMENT COMPANY

NEWARK 1 NEW JERSEY

Sales and Service in the Principal Cities of U. S. and Canada

AFFILIATED WITH PYRENE MANUFACTURING COMPANY

STOP FIRES BEFORE THEY GET OUT OF CONTROL

with INDIAN Fire Pumps

DO YOU REALIZE

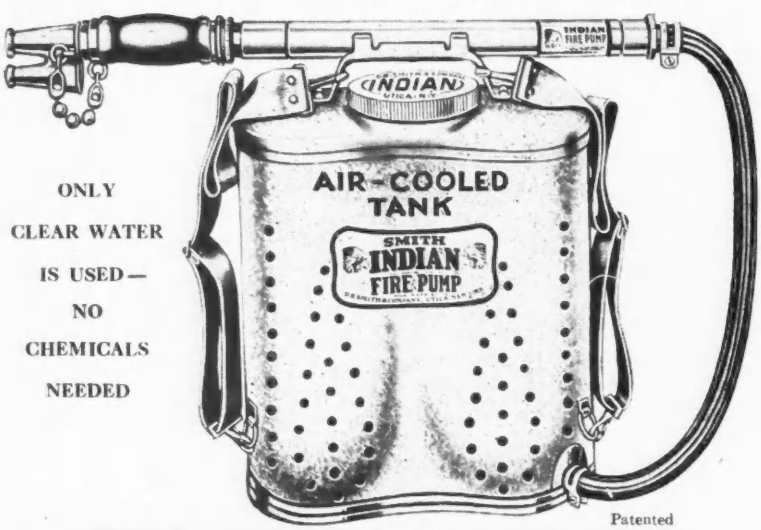
that INDIAN FIRE PUMPS *alone* will take care of a great percentage of your calls without laying hose? These speedy, portable fire fighters — using only clear water — are the quickest, most economical way to put out roof, chimney, rubbish, room and building fires in their early stages. They are the perfect solution to troublesome grass and brush fires.

"Equally Efficient for Both Inside and Outside Fires"

***This is a typical comment of users of* INDIAN FIRE PUMPS:**

D. B. Smith & Co., Utica, N. Y.

For the past 12 years we have stationed on our apparatus INDIAN FIRE PUMPS for first aid work in fire extinguishment. We have used them for open fires and confined fires and find them equally efficient both inside and outside of buildings. The INDIAN FIRE PUMP is a compact, efficient fire fighting machine and, properly and quickly used, will extinguish or control 75% to 80% of all fires. *Very truly yours,* J. N. SULLIVAN, *Commissioner.*



ONLY CLEAR WATER IS USED— NO CHEMICALS NEEDED

Patented

D. B. SMITH & CO., 411 Main St., UTICA, N.Y.

Pacific Coast Agents

Hercules Equipment & Rubber Co. 342 Brannan St., San Francisco, Cal.
Mill & Mine Supply Co. 2719 4th Ave. So., Seattle, Wash.
Bingham & Hobbs Equip. Co. Ltd. 395 W. 5th Ave., Vancouver, B. C.
Fred E. Barnett Co. 2005 S.E. 8th Ave., Portland, Oregon
Fred E. Barnett Co. 600 Spring St., Klamath Falls, Ore.
Fred E. Barnett Co. Broadway and Harris St., Eureka, Cal.
Roy G. Davis Co. 617 E. 3rd St., Los Angeles, Cal.

Canadian Agents

Duke Equipment Co. 297 Duke St., Montreal, Que.

Our Readers Say —

Sacramento Chief Describes Use of Radio During Grass Burning

Dear Mr. Kimball:

In answer to your request for data on our annual campaign of burning grass off vacant lots in the city, I transmit the following information.

Each chief officer in the department is assigned a district and is personally responsible for all vacant lots within its boundaries. The campaign gets under way the first of May when the chief officers contact the property owners adjacent to vacant lots in their district. By explaining the hazards of dry grass next to their property, most owners are encouraged to cut the grass away from their shrubs, fences, etc., for at least four feet. This greatly lessens the danger of exposure when the grass is burned. In event the property owners live out of town, or circumstances make it too difficult for them to take the proper precautions, it is done by the fire department crews.

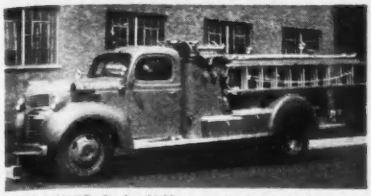
When the grass is dry enough to burn easily, usually about June 1, the crews start in and continue until all vacant lots with dry grass in the city have been burned. The job is completed by July 4.

Each crew is composed of on-duty men who stay in service for fire call duty through the use of two-way radio in the chief officer's car. In event of an alarm in their district which calls for a full assignment, not still alarms, the crews respond to the location, one man being left at the scene of the grass burning. Each crew consists of a chief officer and a car with two-way radio, four or more men, a water wagon equipped with a 500-gallon water tank, two 1-inch booster lines, pump tanks, 2½-inch and 1½-inch hose for use as plug streams, or a pick-up truck equipped with 2½-inch and 1½-inch hose, garden hose and pump tanks. Some lots are burned by engine companies in their respective districts and stay in service by being convoyed by a chief officer in a car equipped with two-way radio.

Thus, in conclusion, I might state that through the use of two-way radio a fine public service is provided by this department at no added cost to the people.

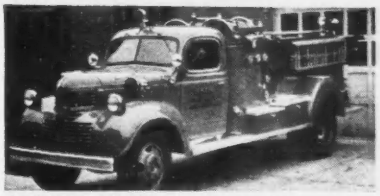
CHIEF TERENCE MULLIGAN,
Sacramento Fire Department
California.

Continued on page 16



BAY SHORE, L. I., N.Y. *Standard FMC Fog Fire Fighter delivered to Bay Shore Fire Dept.*

ROSE VALLEY, N. Y. *Standard FMC Fog Fire Fighter delivered to Rose Fire Dept.*



BERKELEY SPRINGS, W. VA. *Standard FMC Fog Fire Fighter delivered to Bath Fire Dept.*

THE RECORDS SHOW...

OLD FORT, OHIO. *Standard FMC Fog Fire Fighter delivered to Old Fort Volunteer Fire Dept.*

CHARLOTTE, MICH. *Standard FMC Fog Fire Fighter delivered to Charlotte Fire Dept.*

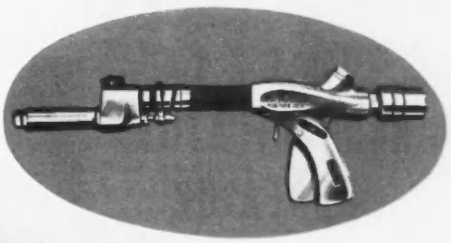
. . . that PROGRESSIVE fire departments are shifting to FMC High-Pressure Fog Fire Fighters.

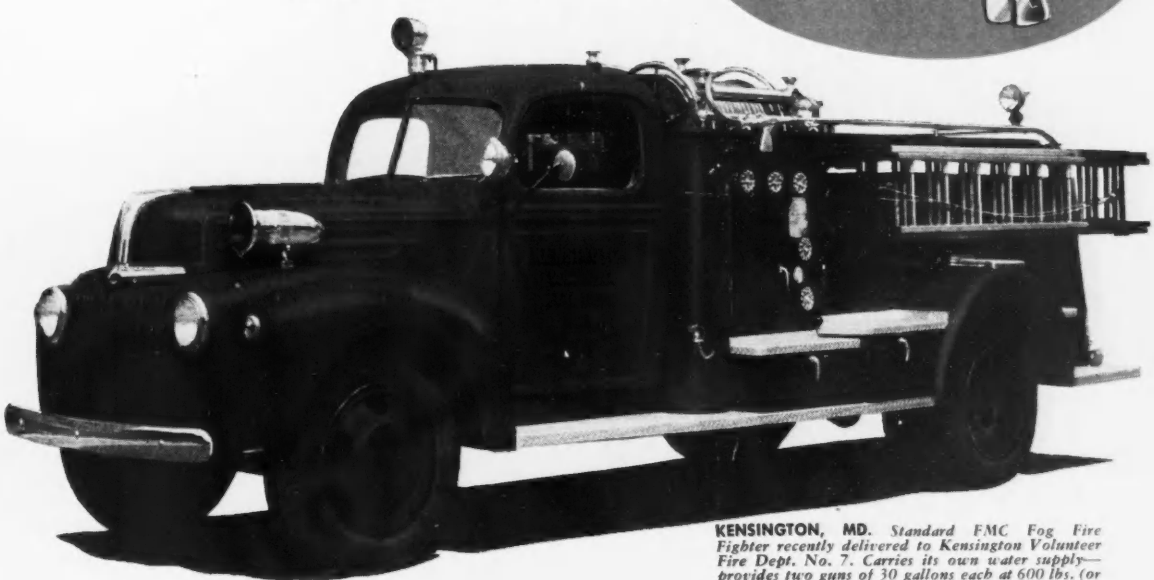
Their records show that fire fighting is faster . . . surer . . . with FMC high-pressure equipment — that water damage is held to a surprising minimum.

Every day, old fashioned theories are overwhelmed by results given by FMC high-pressure equipment and technique. Get the complete information. Investigate FMC High-Pressure.

UNDERWRITERS' LABORATORIES APPROVED

ONE MAN CAN HANDLE the patented Bean fog fire gun. Provides every type of fog pattern —everything you need for high pressure work.





KENSINGTON, MD. *Standard FMC Fog Fire Fighter recently delivered to Kensington Volunteer Fire Dept. No. 7. Carries its own water supply—provides two guns of 30 gallons each at 600 lbs. (or more) nozzle pressure—complete in every respect.*

FMC *Original* HIGH-PRESSURE FOG FIRE FIGHTER

CAN BE MOUNTED ON MOST STANDARD TRUCK CHASSIS

FOOD MACHINERY CORPORATION

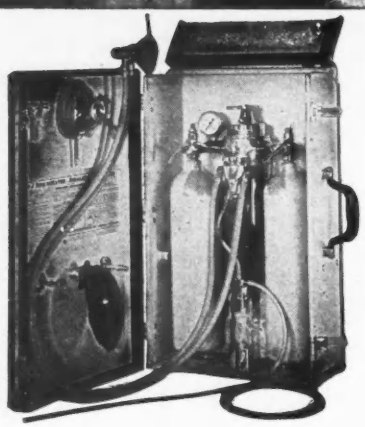
JOHN BEAN MFG. CO., 726 HAZEL ST., LANSING 4, MICH. • BEAN-CUTLER DIVISION, 426 JULIAN ST., SAN JOSE, CALIF.

BUILDERS OF BEAN HIGH-PRESSURE PUMPS FOR OVER 60 YEARS

WHEREVER YOU FIND LIFESAVING AT ITS BEST

You'll find

The E & J RESUSCITATOR INHALATOR and ASPIRATOR



There are important reasons why so many fire departments, hospitals and industrials have purchased additional E & J Resuscitators after successful experience with their first unit. These automatic breathing machines are built to include vital life saving features not found in other equipment. A comparison of other equipment and methods by your department will quickly reveal why the vast majority of fire departments have chosen the E & J. We invite your thorough investigation.

E & J MANUFACTURING CO.
GLENDALE, CALIFORNIA
Pioneers and Specialists in Mechanical Artificial Respiration

Drexel Bldg. Philadelphia	17 E. 42nd St. New York	2144 N. Springfield Ave. Chicago	581 Boylston St. Boston
530 Fernando St Pittsburgh	3032 W. 25th Ave. Denver	3900 Grandy Ave. Detroit	5005 Euclid Ave. Cleveland

Our Readers Say—

Continued from page 14

Safety Equipment Executive Gives Information Concerning OCD Masks

Dear Mr. Kimball:

The War Assets Administration is conducting site sales of surplus equipment designed for use by the OCD. One of the items offered is a gas mask. Some of your readers may be wondering whether or not OCD masks would serve any useful purpose in their business. We quote from statements which appear either on the canister, or the carton, or on a leaflet which accompanies each OCD mask: The *canister* bears the following:

WARNING

"This gas mask is for protection against chemical warfare agents only, dispersed in free air."

The *carton* bears the following:

"The purpose of this mask is to purify, under open air conditions, air containing irritating and poisonous gases and smokes used as chemical warfare agents.

"DO NOT USE against ammonia, carbon monoxide, illuminating gas, mine gases, when fighting fires in closed places, in mine rescue work, in fumigating work, in semi-closed or closed places (tanks, etc.) containing volatile liquids, in places where large quantities of gas or vapor have been released so as to build up concentrations of one or more percent by volume in air, in any place where the oxygen content is so low that a safety lamp will not burn."

A *leaflet enclosed in the package*, telling the user how to use the gas mask in case of a gas attack, includes the following:

"Filter. It filters out smoke — any kind of smoke. Some war gases are really smokes. But this canister protects you. Even smoke from fires or explosives, which might make you cough and want to remove your mask, is filtered out. This is a special treated charcoal. It has been made to absorb or filter out all war gases. It will not protect you from illuminating gas. It will not protect against the fumes of automobile exhaust. It will not protect against the fumes of a leak from automatic refrigerator or ammonia fumes. These substances, being very light and easily dispersed, are not used as war gases. But from any war gas — it will protect your eyes, nose, throat and lungs."

The leaflet says that the canister accompanying the mask "will protect for four hours." We are not advised as to whether or not replacement canisters are available — in any event, the method of attaching the canister to the mask would indicate that it may not be intended for replacement.

A. O. BONIFACE, *Executive Secretary*
Industrial Safety Equipment
Association, New York

"Firemen's Medal of Supreme Sacrifice"

THE Uniformed Firemen's Association of Greater New York, Local No. 94 of the IAFF, has announced the creation of a medal to be presented annually to the nearest of kin to New York City firemen killed in the line of duty.

Names of firemen thus honored are: Lieut. Joseph A. Joyce, Engine Co. 40 Died after directing advance of hose line into carbon monoxide-filled building.

Fireman Nelson L. Tuite, Engine Co. 36. Crushed by collapsing wall.

Fireman Elbert Hardman, Engine Co. 36. Died with Fireman Tuite.

Fireman Morris Graf, Engine Co. 31. Died after advancing line through smoke-filled warehouse.

Fireman Frank J. Winklarek, H. & L. Co. 36. Died while warning comrades of collision as company returned to quarters.

Bn. Chief Anthony Jireck, 32nd Bn. Overcome after commanding his men at a major fire.

Fireman James J. Ryan, No. 4,

Continued on page 23

INSURANCE
WON'T STOP FIRES!

OR PUT YOU BACK IN PRODUCTION
IN A FEW HOURS

Smoke pours out; the fire alarm sounds; workers rush out of the building; the fire started as a small blaze, but your plant is out of operation for weeks; all the insurance in the world won't put out the fire. But insurance is just as necessary as Pyrene Fire Extinguishers at the start. Standardize on Pyrene Protection. Control of fire in all its phases has been Pyrene's business for almost 40 years. There are specific Pyrene Fire Extinguishers for different classes of fires. A Pyrene jobber will be glad to help you determine your fire hazards and advise best methods for protection from them.

Pyrene

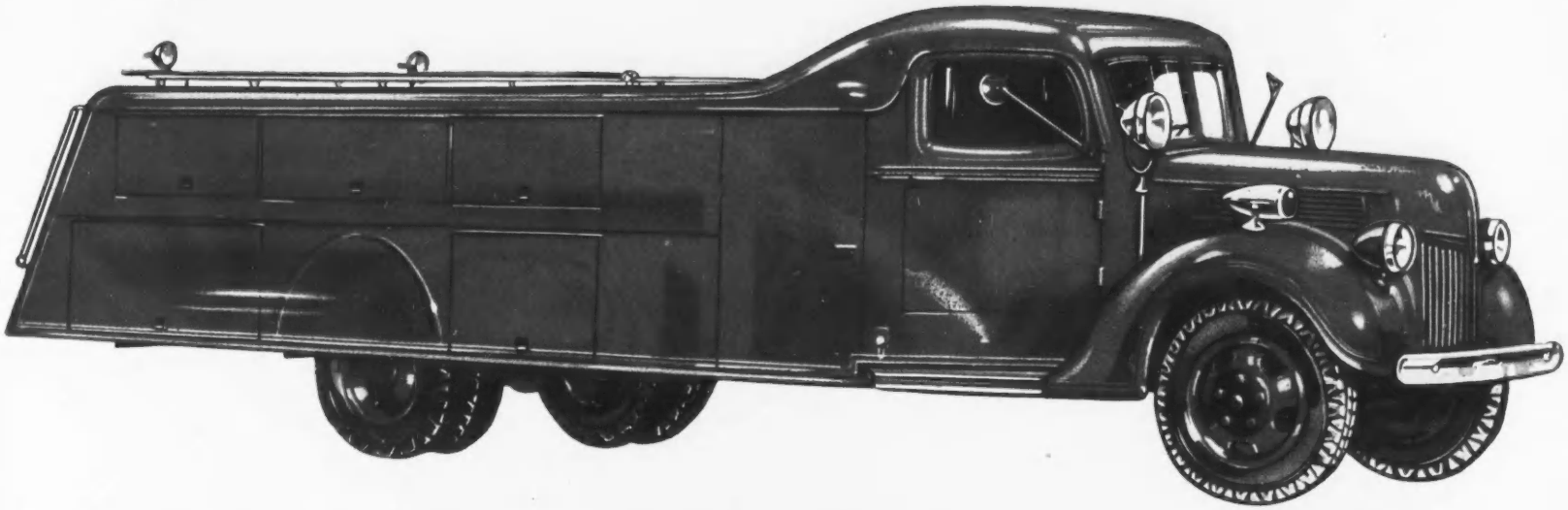
A Pyrene Soda-Acid or Water-Type extinguisher can keep a little fire from getting big—ideal for stores, office and plants or other indoor locations containing ordinary combustibles, wood, textiles, paper. Locations where oil, gas, paints, lacquers, solvents and other flammable liquids are used should be protected by Pyrene Foam, a fire-choking blanket of tiny bubbles. It flows freely over the surface of the burning liquid, covering the whole area of the blaze with an air-tight layer of foam.

CONSULT YOUR
NEAREST
PYRENE JOBBER
OR WRITE
FOR ADDITIONAL
INFORMATION

For electric equipment, diesel engines and flammable liquids, a Pyrene Vaporizing Liquid extinguisher smothers fire without injury to equipment; a non-conductor, it may be used on electrical equipment still in operation or around live wires.

Pyrene Manufacturing Company
NEWARK 8 NEW JERSEY
Affiliated with the C-O-Two Fire Equipment Co.

DARLEY CHAMPION 145 — TYPE S500 PUMP

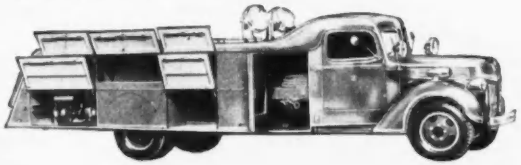


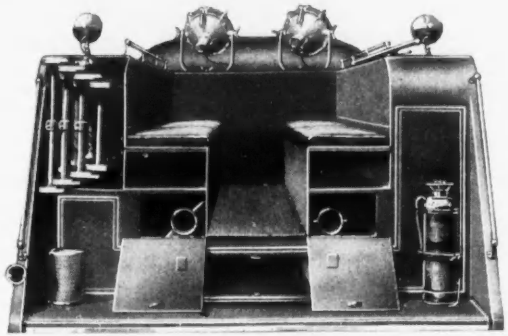
COMPLETE FLOODLIGHT EQUIPMENT

A compartment is provided in the right side of the body at the rear to carry the portable electric plant. The two floodlights can be carried on a special mounting platform in back of the cab or in a compartment.

ALL EQUIPMENT FULLY ENCLOSED

This body is designed and constructed with ten compartments, all extra large, so that everything can be carried safe against the weather, dust and loss or damage. Body width 91 inches. Can be built on any chassis with wheelbase up to 200 inches.



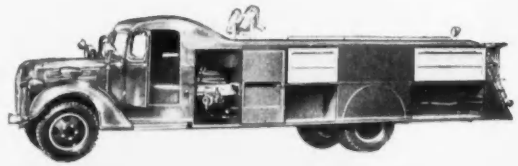


SEATING CAPACITY FOR 8 MEN

Ample room for 4 men on each side with generous aisle space for speedy entry and exit. The seats lift up so that the compartments below can be loaded with fire hose. Suction hose, 4 lengths if desired, carried in compartments where it is instantly accessible. Extension ladders and roof ladders carried in completely protected compartment in left side of body.

3 MAN CAB

Special custom cab, extra wide to carry three men. Streamlined with the body; rugged allsteel construction. Spring cushioned seat and back rest. Removable cushions, covered with fabricated weatherproof material, far more durable than leather. Pump controls totally enclosed yet instantly accessible thru full length door directly in back of cab. Booster hose carried in bed or on reels directly above pump—both lines always live and either one or both can be pulled out for quick booster streams.



New NFPA President, Curtis W. Pierce

CURTIS W. PIERCE, president of the Factory Insurance Association, was elected to replace Richard E. Vernor as president of the NFPA, at the recent 50th Annual Meeting held in Boston.

Mr. Pierce assumes the presidency with a long record of service in the fire field. He served as chief engineer and later as vice-president in charge of engineering for the America Fore Group of fire insurance companies. He has long been interested in, and made notable contributions to, technical standards for fire protection. As a member of the NFPA Board of Directors, and during recent years as president of the FIA, Mr. Pierce has been very active in fire prevention educational work.

In 1942 Mr. Pierce became president of the FIA in answer to a call from executives of the Capitol Stock Fire Insurance Companies to consolidate the then three independent associations, with offices in Hartford, Chicago and San Francisco, into a nation-wide organization.

In September 1941, representatives of the Fire, Casualty and Boiler Insurance Companies of the country — Stock, Mutual and Reciprocal — elected Mr. Pierce manager of the National Bureau for Industrial Protection. The bureau functioned to make available to government agencies, during wartime, technical information and services available through the American insurance business. When the bureau closed in

Continued on page 23

DUAL PURPOSE

HERE'S THE PUMP THAT GIVES BOTH

1-INCH SOLID STREAM

AND

FOG

It's Five Ways Better

Barton-American's Gear Driven Front Mounted Centrifugal Fire Pump can be installed in a few hours time.

A Bear For Work

Delivers 60–90 GPM at 600 lbs. pressure with FOG nozzle and 200 GPM through 2½" line with 1" SOLID STREAM nozzle . . . at engine speeds equal to only 40 mph. Front mounted construction leaves room for 1,000 feet of 2½" hose plus 500 gallon booster tank. Pumps dirty water with minimum loss of efficiency.

AMERICAN-MARSH

PUMPS, INCORPORATED

BATTLE CREEK ◆ MICHIGAN

FIREMEN'S CLOTHING FROM Rubber and Canvas Midwestern

This Midwestern Combination Suit, made of Vanitex, the modern waterproof fabric, is sold separately or together. The "Mackinaw Coat" is a highly serviceable garment with flexible elastic inner sleeves; adjustable collar strap, detachable wool lining, Midwestern safety snaps, two outside pockets, 6" storm flap and many other good features.

Hundreds in use All over America

Midwestern Bunker Pants with detachable wool lining, safety snap on adjustable belt, wide protecting flap, are sturdily constructed with reinforced crotch for pole sliding. Write today.

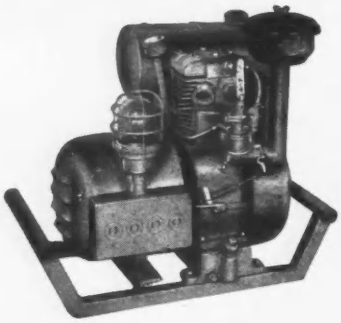
FIREMEN'S BOOTS

Regular Firemen's Boots, ¾ length, available now. We can also supply REGULAR Firemen's Boots, felt lined, reinforced instep. See your Midwestern Manufacturing Company dealer for prices or write the factory.

Mackinaw Coats are Manufactured by

MIDWESTERN MANUFACTURING CO.

MACKINAW, ILLINOIS



"U.S." ELECTRIC PLANTS

These rugged 1,500 watt units were designed to fire department specifications — built to meet every need. Dependable, quick-starting, 4-cycle engine. Positive lubrication. Automatic voltage regulation. No fussing to mix gasoline and oil. Compact — an easy load for two men.

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Subdues oil or gasoline fires in a matter of seconds. Prevents flashbacks. Blankets blaze and shuts off access to air. Clings to any surface, horizontal or vertical. StrangleAIR does not deteriorate. Good until used.

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AMERICAN DIE & TOOL CO., INC.
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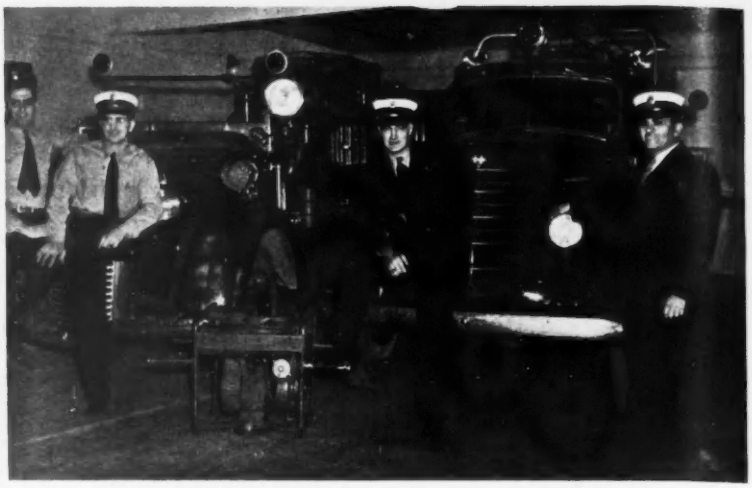

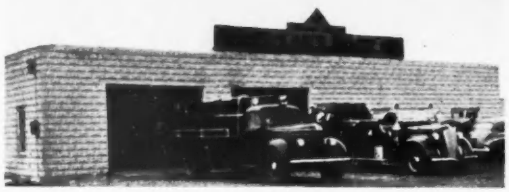

NINE years ago, the West Lake Hose Company, of Millcreek Township, Pa., was incorporated to support a fire engine, hook and ladder, and hose company. In 1937, Millcreek was an expanding community but far behind the times in the matter of fire protection. Today West Lake Hose Company, Inc., is a well equipped department serving an area to the west of city of Erie, including several small factories, an amusement park, lake shore summer homes, and the Erie airport.

To the left is pictured West Lake's 1,030-gallon water tank truck, remodeled from a gasoline tank and mounted on a ½-ton, 1937 International chassis. There are 2½-inch valved outlets on either side and on the rear for attaching suction hose. It carries no pump. Pumping equipment consists of a Howe truck on which is mounted a 500 g.p.m. pump. There is also a Hale type FZZ portable pump for volume or pressure service.

The Romeo, Mich., Volunteer Fire Department submitted this picture of their new pumper. It has a 3-ton International chassis; 500 g.p.m. two-stage, Waterous centrifugal pump; and a 400-gallon booster tank. The divided hose body holds 1300 feet of 2½-inch hose and 400 feet of 1½-inch hose. The two booster reels each hold 200 feet of 1-inch hose. Ladder equipment carried consists of one 30-foot, three-section extension and one 12-foot roof ladder.

Kent Firemen Report Again on Use of High-Lift Suction Pump

READERS of FIREMEN for June will recall the report of a fire near Kent, Wash., in which a number of airport buildings were saved because the fire department used a new suction booster to obtain water from a railway ditch that was out of reach of ordinary suction facilities.

Chief Charles Bridges, of the Kent Fire Department, reports that on May 11 the high-lift suction was again employed to control a fire that spread 1,000 feet along the trestle of the Milwaukee and St. Paul railroad. Water was lifted to a height of thirty-five feet from a distance of fifty feet, enabling the department to limit the total destruction to three piles. Trains were running across the bridge less than four hours after the fire.

★ ★ ★

Hatfield-Campbell Coal Creek Fire

Continued from page 7

lines, greatly cutting time and manpower in this operation. A hose tender equipped with a deluge nozzle laid two lines from another pumper at a hydrant and used tender's pump to relay and boost the pressure to the deluge nozzle. Laying hose over railroad tracks and under cars consumed time and energy and increased hazards to personnel, in addition to the fact that the firemen were working after dark and hindered by unseen obstacles and ditches."

★ ★ ★

U. S. Fire Losses Still Going Up

THE National Board of Fire Underwriters estimated the United States fire loss for May 1946 at $46,094,000. This was 11 percent over the May 1945 figure.

United States fire losses for the twelve-month period ending last May totaled $499,094,000, as compared with $441,310,000 for the year ending May 1945.

★ ★ ★

Canadian fire losses for May 1946 were estimated at $3,806,010, according to the *Monetary Times*.

FORETHOUGHT . . .

Reporters seldom mention the lives saved and the property loss prevented by Chiefs and Assistants whose forethought has nipped an incipient fire disaster in the bud.

Few realize, either, that back of such forethought lie hundreds of hours of study, training and practice . . . and the careful accumulation of Fire Fighting Equipment that *must* be dependable when disaster strikes.

Such dependability is inherent in Hale Fire Pumps —not by chance, but by *forethought* and by constant research resulting in constant improvement.

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Waterworks *and the* Fire Department

Continued from page 11

trolled without the use of much water that many fire departments do not notify the water department until a second alarm is transmitted, but it is not a bad practice to notify the water department of all fires in important districts, so they can be on the alert.

In cold weather the sooner a water department crew can get to a hydrant after it is used the less chance there is for it to freeze. A hydrant froze once during a fire when a nozzle was shut off and allowed to stay that way a few minutes. By the time a crew got to work thawing it out, nearly half an hour was lost. Some corrections on water maps are needed from time to time and no fire officer should allow a map to get out of date. Fire officers have other things to do than call on the water department, but it it profitable not to neglect that activity. A joint fire flow survey should be made so the amount of water that can be obtained from any hydrant will be known.

There are occasions when the two departments must work together in planning for fire protection. These occasions may range from deciding where best to locate some new hydrants to finding ways and means of getting a better water supply to new property that is difficult to reach. The fire chief should be able to determine how much water should be available at any location and how many hydrants are needed. The water department should be able to determine the sizes of pipe needed to deliver the water.

A situation is recalled which illustrates what can happen if combined planning is not followed. The water superintendent in this particular city had the reputation of having a good business head, although he was not an engineer. He had acquired the notion that a pumper type hydrant always produced a lot of water and he made a ruling that nothing else was to be installed. When a new industry was built at the edge of the city, it was agreed that fire protection would be provided. The superintendent ordered six new pumper hydrants and about one-half mile of 4-inch pipe. There are a lot of nice looking hydrants along the highway, but the fire department can get enough water for only one fair fire stream, largely because the fire chief did not take the trouble to find out what was planned. It was too late to stop things when the material was delivered to the job, and a serious rift in relations developed because the chief protested against laying such a small pipe.

There are many cases where the relations and cooperation are excellent. One which is out of the ordinary is in a city which has a well managed and profitable waterworks. For years the successive heads of the water department have been actively interested in the fire department. Years ago when the fire chief wanted to install pumpers but met objections in the city council, the waterworks board offered to help out. The superintendent argued that the water system could not furnish adequate pressure if a bad fire should occur in the mercantile district or at any one of several factories, if it should become necessary to use as many as ten lines of hose. He said it would be more economical for the water department to help buy pumpers for the fire department, which could be used to increase the pressure, than to install permanent booster pumps and heavier pipe.

In another city a fire chief succeeded a man who seemed to be incapable of doing anything but disagree with the water superintendent. The new chief was a genuine student and quite progressive. One of his hopes was to increase the use of automatic sprinklers, but he was doubtful about the attitude of the water department. The chief was convinced that a sprinkler installation uses water for fire in the most economical and efficient way, but he learned that many people in the waterworks field do not realize that. He also learned that many waterworks people fear illegal use of water from sprinkler piping and a possibility of serious waste through a broken sprinkler supply pipe.

This chief used the good judgment to inform himself on the subject before he mentioned it to the water superintendent and consequently made a good impression. Results were not immediate, but the water superintendent, also a well informed person, finally decided that the advantages of sprinklers far outweighed the possible troubles they might cause. He entered into the plan whole-heartedly and made every possible concession to encourage property owners to install sprinklers. The relations between the two departments have since been most cordial. No fire chief could ask for greater interest from the water department.

It is possible for anyone to become a nuisance, of course, and the fire chief must keep that in mind. With few exceptions, the heads of waterworks of all sizes are aware of the importance of the water supply in fire fighting and none will consciously neglect that phase of their job. They do get occupied with the responsibility of the sanitary and business parts of their job. Serious fires are so uncommon in most cities that they do create emergencies. They come without warning and fast, so every possible operation that can be anticipated must be planned in advance.

The quantity of water used in fighting a large fire is much greater than the heaviest normal consumption, except in large cities. It is often a real problem to arrange for such a sudden increase in pump output. Waterworks people pride themselves on their ability to furnish water without interruption and without serious reduction in pressure. The better managed waterworks are so designed and operated that any increase in demand can be met smoothly. Much good may result if the fire chief and other officers inform themselves about what happens in the pumping station when a fire occurs. They will appreciate the importance of having the water department notified of a fire simultaneously with the fire department. The water department likes to know when the fire is under control, too. There is a definite trend toward the use of large elevated storage tanks to take care of sudden heavy demands and that frequently requires some change in pressures, but the transition has been successfully made in many cities.

No attempt has been made to take up the many details that go to make up the relationship between the water and fire departments, details which are familiar to every chief with much experience. The principal purpose here has been to show that none of them should create any real trouble. There is no reason why there should not be close cooperation between the two departments and there seldom is anything else when the heads are properly informed and intelligent. The fire department training programs have done a lot and will do more to bring sound knowledge to firemen. It is to be hoped that it will spread to any waterworks officials who do not already have the proper appreciation of the importance of each department to the other.

Firemen's Medal

Continued from page 17

Engine Co. 1. Died while taking hose line through intense heat and smoke.

Bn. Chief Charles Kohlenberger, 2nd Bn. Lost his life while directing removal of high tension line.

Fireman Stephen J. Butch, H. & L. Co. 5. Lost his life in a collision.

Fireman James Costello, Engine Co. 263. Died in the performance of duty in the quarters of his engine company.

Fireman William F. McNulty, Engine Co. 233. Gave his life while advancing a line.

Fireman John W. Eiserman, Engine Co. 299. Died when his engine collided with a private vehicle.

New NFPA President

Continued from page 19

September 1945, letters of appreciation from the President of the United States and from the heads of government agencies served, told of a job well done.

Mr. Pierce is keenly interested in the affairs of the NFPA Volunteer Fire Company Section.

National Fire Protection Association, International

Associate Membership

VOLUNTEER FIRE COMPANY SECTION ($10 annual dues) Eligible:

(1) all bona fide volunteer fire organizations in any community.

(2) all fire departments and companies in communities of less than 25,000 population.

(3) all industrial fire brigades.

Member volunteer fire companies receive ten copies of FIREMEN magazine each month, mailed to the homes of individual firemen. Beyond the ten, additional copies of FIREMEN cost $1 per year.

Volunteer Fire Company Section members, receive at their headquarters, one copy of all publications sent to NFPA associate members.

ASSOCIATE MEMBERSHIP ($10 annual dues) Eligible: Individual fire department officers, firemen, and others interested in fire safety. NFPA associate members in the fire service receive: one copy of FIREMEN magazine monthly, the NFPA **Quarterly**, the monthly **News Letter**, technical standards, popular bulletins and posters.

All associate members have one vote in Association affairs.

New members: Volunteer Fire Company Section—

UNITED STATES

Niantic Fire Dept., Niantic, Conn.
Neptune Volunteer Fire Dept., Neptune, N. J.
Edmeston Volunteer Fire Dept., Edmeston, N. Y.
Copiague Fire Dept., Lindenhurst, N. Y.
Greenfield Fire Dept., Greenfield, Ohio.
Willowick Fire Dept., Willoughby, Ohio.
Reamstown Fire Company No. 1, Reamstown, Pa.

CANADA

Pictou Fire Dept., Pictou, N. S., Can.
George A. Chase, Ltd., Private Fire Brigade, Port Williams, N. S.
Sydney Mines Fire Dept., Sydney Mines, N. S.

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- Is easier to use
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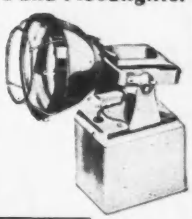
Uses Small Rechargeable Battery Mile Range



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Emergency Floodlight For Theatres, Road Houses, etc.

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Dry and Rechargeable Units. ¾ Mile Range

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Roof mounted Officers Searchlight 360°

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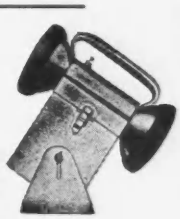

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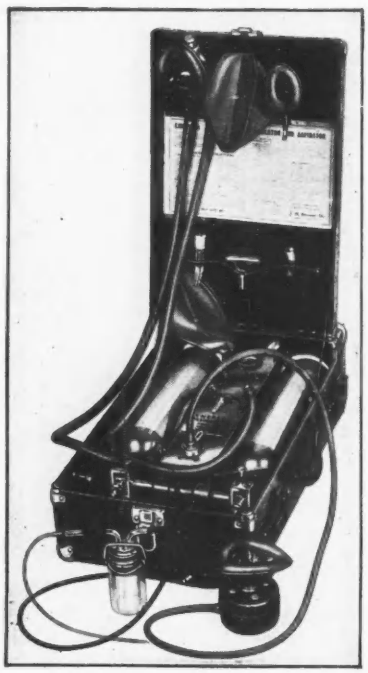

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Before you have men knocked out or perhaps killed with smoke or gas suffocation, get your protection ready. And make it the best protection that money can buy. The more you study the experience of fire department leaders in life-saving, the more you will insist on the EMERSON RESUSCITATOR, INHALATOR AND ASPIRATOR.

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Representatives in Principal Cities

MANUFACTURERS' ANNOUNCEMENTS

Lighted Baton for Controlling Night Traffic

A new device for controlling traffic at night is the Traffic Baton recently placed on the public market by Signal Service Corp. of Elizabeth, N. J. During the war many thousands of these batons were used for night direction of traffic by military police all over the world. In the fire service they should be useful not only in controlling traffic at a fire but also in directing late arriving fire companies. The baton consists of a hollow Lucite barrel and a battery case resembling the common two-cell flashlight case. The Lucite light-barrel has numerous yellow plastic reflector buttons set into its surface which reflect points of yellow light from approaching cars when the light in the baton itself is not on. According to the manufacturer the Traffic Baton is more effective than an ordinary flashlight because the entire barrel area is easily visible regardless of position whereas flashlight signals are visible only when the light is pointed directly at the driver.

New Portable Electric Hand Lamp

The U-C Lite Manufacturing Co. of Chicago, Ill. announces production of a new model portable electric hand lamp. Known as the No. 211, this lamp has a

single focus adjustment by means of which it will deliver a spot or spread light. It is powered by two standard dry-cell batteries and weighs complete approximately five pounds. For details and descriptive leaflet write to the manufacturer at 11 East Hubbard St., Chicago 11, Ill.

Darley Publishes Apparatus Catalog

An attractive 24-page illustrated catalog of fire apparatus has recently been published by W. S. Darley & Co. of Chicago, Ill. This catalog which is confined to pumps and pumpers describes no less than eighteen different models of pumpers employing several makes of commercial truck chassis and seven models of the Champion line of fire pumps produced by the Darley Company. A copy of the catalog will be sent on request to any fire department officer requesting one. Address your request to the manufacturer.

Catching False Alarmers

Recently there has been considerable interest shown by fire authorities in a new method of apprehending those who sound false fire alarms. The method employs an "invisible" powder which, when applied to the handle of the alarm box clings to the fingers of the person sounding the alarm. By irradiating the hands of suspects with ultra-violet rays the culprit will be exposed when the "invisible" powder fluoresces. The necessary equipment to employ this method is manufactured by Ultra-Violet Products, Inc., of 5205 Santa Monica Blvd., Los Angeles 27, Calif., and the equipment is known as "Mineralight." The equipment is easily portable and may be powered by a 6-volt battery carried in a case. Standard "Mineralight" equipment may also be powered from a 110-volt circuit. A catalog of "Mineralight" equipment together with authoritative articles on its use will be sent to any fire department officer requesting it on official stationery.

WANTED

Used electric or air siren for rural fire department use. Reply with complete details and price to C. E. Hyde, Hotel Touraine, Boston, Mass.

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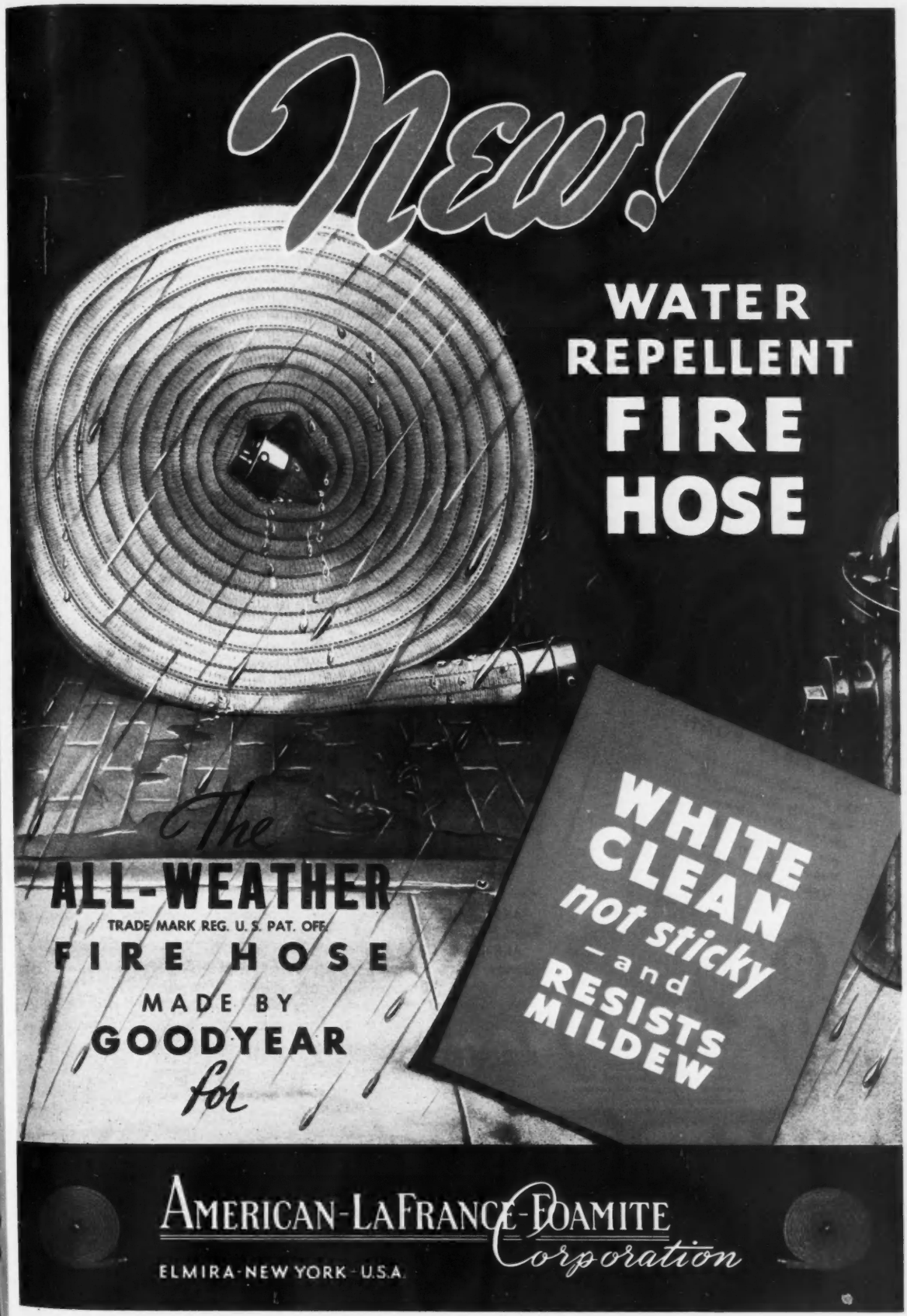
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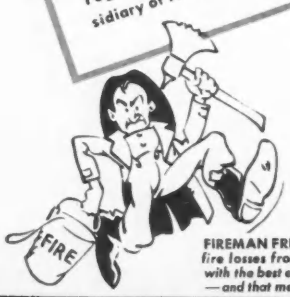

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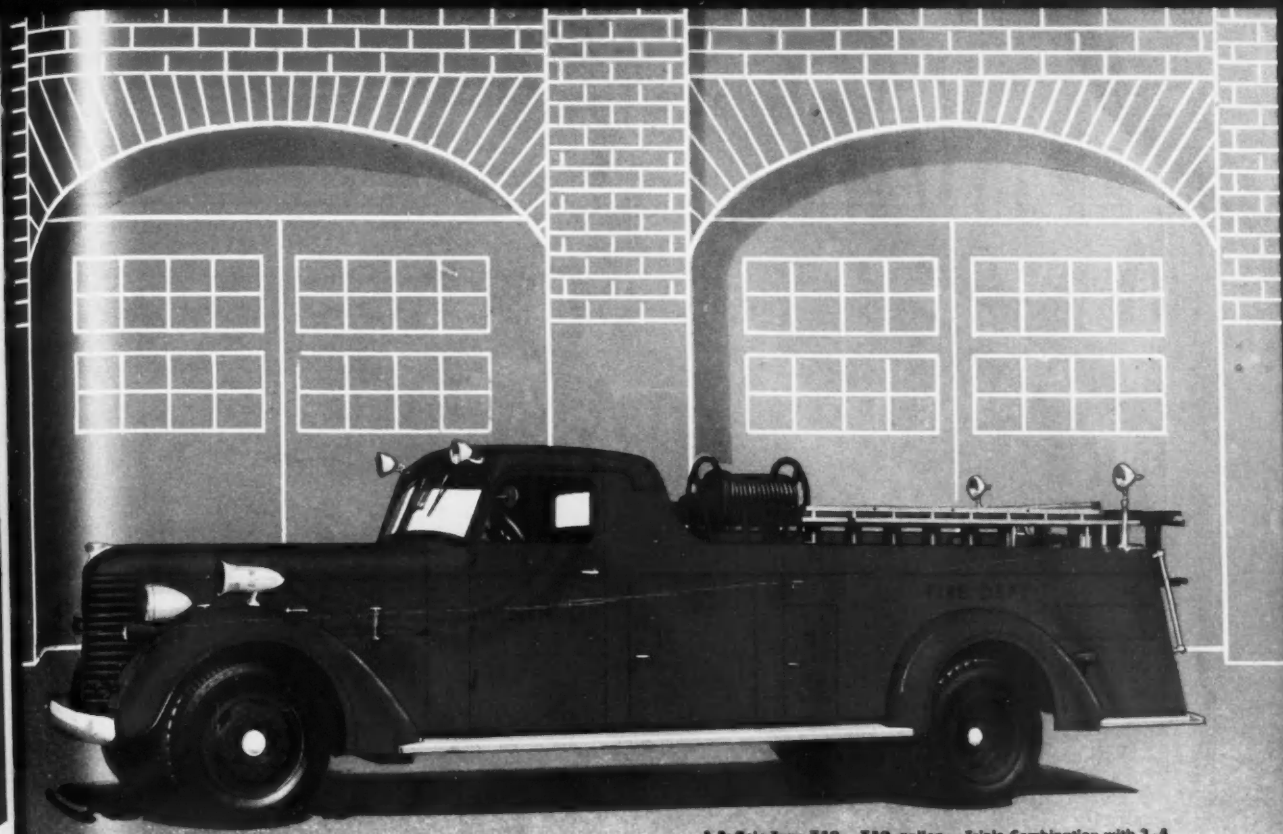

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